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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/726,031
Filing Date: December 01, 2003
Appellant(s): SHIKHMAN ET AL.

H.M. Bedingfield
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/16/2010 appealing from the Office action mailed 9/15/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-13, 16, and 17-20.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claims 14, 15, and 21-25 under 35 USC 103(a) as being unpatentable over Sauer '702 in view of Sauer (US 5,643,289) and Iglesias (US 4,134,406) has been withdrawn.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

4,779,616	Johnson	10-1988
4,917,082	Grossi et al.	4-1990
5,501,692	Riza	3-1996
5,935,149	Ek	8-1999
5,520,702	Sauer et al.	5-1996
4,102,478	Samoilov	7-1978

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (U.S. 4,779,616). Johnson discloses a suture loading assembly for threading suture material through a surgical instrument, the suture loading assembly comprising a body (10), an attaching member (12) extending from the body and a flexible loop (14) extending from a distal end of the body. Regarding the attaching member, the language "for attaching the body to the surgical instrument" is considered functional language and the attaching member must only be capable of being used to attach to a surgical instrument. Depending on the structure of the surgical instrument, the member can be attached by a clip member that extends from the surgical

instrument and engages the attaching member (12). It is noted that the surgical instrument appears only in functional language and therefore any surgical instrument can be chosen. The body includes a bore from which the wire loop extends.

Claims 1-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Grossi et al. (U.S. 4,917,082; "Grossi"). Grossi discloses a suture loading assembly for threading suture material through a surgical instrument, the suture loading assembly comprising a body (62), an attaching member (68,70) extending from the body and a flexible loop (22) extending from a distal end of the body (see fig. 1-4). Regarding the attaching member, the language "for attaching the body to the surgical instrument" is considered functional language and the attaching member must only be capable of being used to attach to a surgical instrument. The body includes a bore from which the wire loop extends (col. 4 ll. 58-62).

Regarding claims 3 and 4, the attaching member includes two legs extending from the body, an inner portion of each leg curved to accept a cylindrical member of a surgical instrument wherein the attaching member is slidable along the cylindrical member of the surgical instrument (see fig. 1 and 3). The outer portion of each leg includes an indented area where it joins to body (62). This can be used as a finger grip if one where to grab the device at this point.

Regarding claim 5, the body is now being considered element (60) and the cap is being considered portion (62), which surrounds element (60). The attaching member is still elements (68,70) which extend from body (60) since body (60) is within cap (62).

Claims 1, 2, and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Riza (U.S. 5,501,692). Riza discloses a suture loading assembly for threading suture material through a surgical instrument, the suture loading assembly comprising a body (30), an attaching member (20) extending from the body and a flexible loop (36) extending from a distal end of the body. Regarding the attaching member, the language "for attaching the body to the surgical

instrument" is considered functional language and the attaching member must only be capable of being used to attach to a surgical instrument. Depending on the structure of the surgical instrument, the member can be attached by a clip member that extends from the surgical instrument and engages the attaching member (20) at its proximal-most end (21). The body includes a bore from which the wire loop extends.

Regarding claims 5-7, the device includes a cap (11) surrounding a portion of the body (see fig. 4. The cap includes indents in the sides of the cap that serve as finger grips. Portions (12) and (13) are being considered the base line and the remaining portions of cap (11) are indented from this base line. These can serve as finger grips.

Regarding claim 8, the cap includes openings for receiving the body and the attaching member (see fig. 4).

Claims 1, 9, 11-13, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ek (U.S. 5,935,149). Regarding claims 11-13 and 20, Ek discloses a suture securing instrument comprising an elongated tubular portion having a distal and proximal end, the distal end including a ferrule (212) accepting opening (see fig. 10) the proximal end attached to a handle assembly (see fig. 12) and a suture loading assembly in combination with the instrument comprising a body (400), an attaching member (402) extending from the body for attaching the body to an exterior portion of the elongated tubular portion of the suture securing instrument (fig. 12, col. 5, ll. 63-67) and a flexible loop (410) extending from a distal end of the body. If the surgical instrument were held such that the attaching member is above the suture securing instrument, the attaching member (402) is larger than aperture (62) and will sit on top of the elongated tubular portion and won't be able to fall through the aperture due to its size, and therefore can be considered attached to an exterior of the instrument. The loop is threaded through the ferrule accepting opening (see fig. 10) and loop (410) is made of wire bent into a

diamond shape. In a first position, the flexible loop is provided through an opening in a ferrule (212) and in a second position is provided at least partially retracted from the ferrule and the suture material is at least partially provided within the ferrule (fig. 13, 13a).

Regarding claims 1 and 9, Ek discloses a suture loading assembly comprising a body (400), an attaching member (402) that is capable of being attached to an exterior portion of the surgical instrument, and a flexible loop (410) made from wire extending from a distal end of the body.

Regarding claim 13, the attaching member (402) is capable of being slid along the tubular portion of the suture securing instrument. In other words, there is nothing that would stop a user from being able to hold the attaching member (402) and slide it along the suture securing instrument.

Claims 1, 11-13, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Sauer et al. (U.S. 5,520,702; "Sauer '702"). Sauer '702 discloses a suture securing instrument comprising an elongated tubular portion having a distal and proximal end, the distal end including a ferrule accepting opening (62), the proximal end attached to a handle assembly and a suture loading assembly (304) in combination with the instrument, the suture loading assembly comprising a body (straight portion extending from loop 304), an attaching member (rounded proximal portion) extending from the body for attaching the body to the elongated tubular portion of the suture securing instrument, and a flexible loop extending from a distal end of the body. If the device were held such that the attaching member is above the suture securing instrument, the attaching member is larger than aperture (62) and will just sit on top of the elongated tubular portion. As mentioned above, the language "for attaching the body to the surgical instrument" is considered functional language and the attaching member must only be capable of being used to attach to a surgical instrument. A third piece that clips onto both the

elongated tubular member and the attaching member could be used to mount the attaching member to the elongated tubular member. In a first position, the flexible loop is provided through an opening in a ferrule (100) and in a second position is provided at least partially retracted from the ferrule and the suture material is at least partially provided within the ferrule (fig. 4 and 5). Regarding claim 12, the loop is threaded through the ferrule accepting opening (fig. 4, 5). Regarding claim 13, it is possible to slide the attaching member along the tubular portion of the securing instrument, for example, after the loop (304) has been removed from the ferrule (100) since there is no structure on the attaching member or the tubular portion that would prevent this.

Regarding claim 18, the suture-securing instrument comprises an aperture in the elongated tubular portion, the aperture located proximally of the ferrule-accepting opening, the flexible loop threaded through the aperture prior to threading through the ferrule-accepting opening. The ferrule is placed at an angle as seen in Fig. 3 and therefore, aperture (76) is proximal to the ferrule opening.

Regarding 19, a ferrule is positioned in the ferrule accepting opening.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson. Johnson discloses the invention substantially as stated above but does not expressly disclose a plug used to retain the wire within the body but instead discloses swaging the wire within the body to hold the wire in place (see col. 2 lines 23-26). At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a plug to retain the wire within the body because Applicant has not disclosed that the use of such a plug provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the modified device of

Johnson and applicant's invention to perform equally well with either the claimed plug or the swaging taught by Johnson because both perform the same function of connecting the wire loop to the body. Therefore, it would have been prima facie obvious to further modify Johnson to obtain the invention as specified in claim 10 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of modified Johnson.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer '702 in view of Samoilov (US 4,102,478). Sauer '702 discloses the invention substantially as stated above including a suture loading assembly comprising a body, attaching member, and wire loop (fig. 4; 304) but fails to disclose a cap surrounding the body and attaching member, the cap extending past the tubular portion. Sauer '702 does not expressly disclose how the body and attaching member are attached to one another. Samoilov teaches an attachment between a wire member and an attaching member formed by crimping the wire between the attaching member (12) and a cap member (5) that surrounds the wire (near 25) and the attaching member (see fig. 1). It would have been obvious to one skilled in the art to use such an attachment between the body and attaching member of Sauer '702 because one skilled in the art has good reason to pursue known attachments between a body and attaching member within her or her technical grasp. If this leads to the anticipated success, it is likely the product of ordinary skill. Regarding claim 17, indentations forming finger grips on the area of an instrument engaged by a hand are very well known in the art and would have been an obvious modification to enhance user control over operation of the instrument.

(10) Response to Argument

Regarding the rejection of claims 1, 2, and 9 over Johnson and claims 1, 2, and 5-9 over Riza, Appellant argues that Johnson and Riza each fail to disclose an attaching member extending from the body for attaching the body on an exterior portion of the surgical instrument.

Firstly, it is noted that claim 1 is drawn only to a suture loading assembly that is capable of being used with a surgical instrument as indicated by the preamble “A suture loading assembly for threading suture material through a surgical instrument, the suture loading assembly comprising”. The language regarding the threading of the suture material through a surgical instrument represents a recitation of intended use. Therefore, the prior art must only be capable of performing this intended use to meet the claim. Regarding the limitation drawn to the attaching member, the claim includes “an attaching member extending from the body”. The only recited structure of the attaching member is that it extends from the previously claimed body. The phrase "for attaching the body on an exterior portion of the surgical instrument" is a recitation of intended use and the attaching member must only be capable of performing this function to meet this functional limitation. Because the claim is drawn only to a suture loading assembly which must be capable of being used with a surgical instrument, any surgical instrument can be chosen, including one with a clip member on its exterior portion into which element (12) of Johnson or element (20) of Riza can be clipped into. In this manner, element (12) can be considered an attaching member extending from the body (10) for attaching the body on an exterior portion of the surgical instrument. In other words, the structure of the surgical instrument can be chosen such that it allows attachment of the body to the surgical instrument through the attaching member (12).

Appellant argues that Johnson and Riza each fails to disclose an element that is capable of "grasping or otherwise attaching to an exterior portion of the surgical device". The term

"attaching member" does not inherently impart some sort of clip or grasping element to the attaching member. Rather, the member must only be capable of attaching onto something else. Claims 1, 2, and 9 include no structure(s) for the claimed attaching member other than the fact that it extends from the body. Element (12) of Johnson extends from body (10). Element (20) of Riza extends from body (30). Both of these elements (12 of Johnson, 20 of Riza) are capable of attaching to an exterior portion of an instrument if the instrument has structure such as grasping legs on its exterior portion into which these elements could be clipped. In other words, Johnson and Riza both disclose elements which meet the structural limitations of the claimed "attaching member" and are also capable of performing the functional limitation of attaching the body on an exterior portion of a surgical instrument in the event that the surgical instrument has structure that allows attachment between the surgical instrument and the attaching member. It is noted that the examiner is not suggesting any modification of the prior art of Johnson and Riza. Rather, it is the examiner's position that the attaching members of each element are capable of performing the claimed function as is since the suturing instrument, which is not claimed as part of the suture loading assembly, may have structure that attaches to element (12) of Johnson or (20) of Riza.

Regarding Grossi, Appellant argues that Grossi fails to disclose the claimed flexible loop. The examiner considered loop (22) to be the flexible loop. Grossi explicitly discloses in column 4, line 41 that the wire (14) which forms the loop 22 is flexible (see also figures 1 and 4 of Grossi). Appellant cites a passage of Grossi which discloses that sleeves (50 and 52) add stiffness to the wire (14). However, these sleeves do not cover the loop (22) as shown in figure 2 of Grossi. The loop is clearly capable of being provided in a first position through an opening in the body of a surgical instrument and in a second position at least partially retracted from the opening. For example, the surgical instrument could be a cannula having a diameter which is

larger than the entire device of Grossi shown in figure 1. The entire device shown in figure 1 could be moved forward and backward such that loop (22) either extends outside of the cannula or is retracted away from the opening and into the cannula.

Appellant argues that the examiner contends that the term “suture” does not lend any definition to the claims. This is incorrect. “Suture material” appears in the claim but the "suture material" is not being claimed as part of the device. It appears only in functional language in claim 1 and therefore it is the examiner’s position that the suture loading assembly must only be capable of threading suture material through a surgical instrument. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The device of Grossi, due to its flexible loop (22), can be used to thread suture through a surgical instrument.

The prior art of Ek and Sauer is being addressed together since each reference has very similar structure for the suture loading assembly and Appellant's arguments regarding the attaching member of each reference is the same. Regarding the prior art of Ek and Sauer, Appellant argues that neither the ring of Ek nor the ring of Sauer can be considered the claimed attaching member because Ek and Sauer fail to disclose using these rings to attach the claimed body to the surgical instrument. However, as discussed above, the attaching member must only be capable of performing this intended use. If the surgical instruments of Ek and Sauer are held such that their respective attaching members (rings) are above the suture securing instruments, each attaching member is larger than the aperture through which the body is threaded. In this case, the attaching member will just sit on top of the elongated tubular portion, thereby attaching the body of the suture loading assembly to an exterior portion of the surgical instrument when

the instrument remains in this configuration. As mentioned above, the language “for attaching the body to the surgical instrument” is considered functional language and the attaching member must only be capable of being used to attach to a surgical instrument. No structure for the attaching member has been claimed in claims 11-13 and 18-20 other than its extension from the body of the suture loading assembly. The rings of both Ek and Sauer meet this structural limitation. In the case of Ek, attaching member (402) extends from body (400) as shown in figures 10 and 12. Sauer discloses an attaching member (half ring shown in figure 4) extending from a body. The body of Sauer is being considered the linear portion attached to the half ring as shown in figure 4.

It also appears to the examiner that as currently claimed, the functional limitation “for attaching the body on an exterior portion of the surgical instrument” would be met as long as the attaching member could be used with a third piece for example that clips onto both the elongated tubular member and the attaching member. The limitation is merely stating that the attaching member is capable of attaching the body of an exterior portion of the surgical instrument and does not limit how this is accomplished. If someone could wrap a piece of tape around the attaching member and surgical instrument such that they are stuck together, the attaching member meets the functional limitation of "for attaching the body on an exterior portion of the surgical instrument". The examiner is not suggesting such a modification. Rather, it is the examiner’s position that such a function can be carried out.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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